

Amendments to the Claims

The amendments to the claims are reflected in the Listing of Claims.

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (Currently Amended) An isolated binding ~~member~~ polypeptide comprising at least ~~[[one]]~~ a first and a second binding domain capable of specifically binding Streptococcus pneumoniae surface adhesin A (PsaA) protein, said first binding domain comprises the amino acid sequence of SEQ ID NO 6 or a functional homologue thereof and said second binding domain comprises the amino acid sequence of SEQ ID NO 4 or a functional homologue thereof ~~having a dissociation constant K_d for PsaA which is less than 1×10^{-6} M.~~
2. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 1, wherein the isolated binding ~~member~~ polypeptide is a pure isolated binding ~~member~~ polypeptide.
3. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 1, wherein the binding ~~member~~ polypeptide is selected from antibodies or immunologically active fragments of antibodies or single chain of antibodies.
4. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 3, wherein the antibodies are selected from monoclonal antibodies, polyclonal antibodies or mixtures of monoclonal antibodies.
5. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 1, wherein the binding ~~member~~ polypeptide is monospecific towards the PsaA protein.
6. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 1, wherein the binding ~~member~~ polypeptide is bispecific having at least one portion specific towards the PsaA protein.

7. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 1, wherein the binding ~~member~~ polypeptide is multispecific having at least one portion towards the PsaA protein.
8. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 1, wherein the first and second binding domains [[is]] are carried by a human antibody framework.
9. (Currently Amended) The Isolated binding ~~member~~ polypeptide according to claim 1, wherein the first and second binding domains [[is]] are carried by a ~~humanised~~ humanized antibody framework.
10. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 1, wherein said first and second binding domain recognizes an epitope in the N-terminal ~~part~~ 150 amino acids of PsaA.
11. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 10 wherein said first and second binding domains ~~recognizes~~ recognize an epitope in the N-terminal 100 amino acid residues of PsaA.
12. (Canceled) ~~The isolated binding member according to claim 1, wherein the binding domain comprises an amino acid sequence selected from SEQ ID NO 2, from SEQ ID NO 4, from SEQ ID NO 6, and from SEQ ID NO 8 or a homologue thereof.~~
13. (Canceled) ~~The isolated binding member according to claim 12, wherein the binding domain comprises at least two amino acid sequences selected from SEQ ID NO 2, from SEQ ID NO 4, from SEQ ID NO 6, and from SEQ ID NO 8 or a homologue thereof.~~
14. (Original) ~~The isolated binding member according to claim 12, wherein the binding domain comprises at least SEQ ID NO 4, and SEQ ID NO 6, or a homologue thereof.~~
15. (Canceled) ~~The isolated binding member according to claim 12, wherein the binding domain comprises SEQ ID NO 2, SEQ ID NO 4, and SEQ ID NO 6, or a homologue thereof.~~

16. (Canceled) The isolated binding member according to claim 12, wherein the binding domain comprises SEQ ID NO 8, or a homologue thereof.

17. (Currently Amended) The isolated binding member polypeptide according to claim 1, wherein the binding member polypeptide is capable of binding PsaA from two or more different *Pneumococcus* serotypes.

18. (Currently Amended) The isolated binding member polypeptide according to claim 12, wherein the homologues of said first and second binding domains are ~~[[is]]~~ are selected from the group consisting of those having at least about 60% homologous to SEQ ID NO 6 and SEQ ID NO 4, respectively, ~~one or more of the sequences selected from SEQ ID NO 2, from SEQ ID NO 4, from SEQ ID NO 6, and from SEQ ID NO 8, such as at least about 65% homologous, such as those at least about 70% homologous, such as those at least about 75% homologous, such as those at least about 80% homologous, such as those at least about 85% homologous, such as those at least about 90% homologous, such as those at least about 95% homologous, and those such as at least about 98% homologous.~~

19. (Canceled) The isolated binding member according to claim 1, wherein said binding member is capable of binding to an epitope on PsaA, said epitope being recognized by the binding member wherein the binding domain comprises an amino acid sequence selected from ~~SEQ ID NO 2, from SEQ ID NO 4, from SEQ ID NO 6, and from SEQ ID NO 8 or a homologue thereof.~~

20. (Currently Amended) The isolated binding member polypeptide according to claim 1, wherein the first and second binding domains are ~~[[is]]~~ are located in a V_L domain.

21. (Currently Amended) The isolated binding member polypeptide according to claim 1, wherein the first and second binding domains are ~~[[is]]~~ are located in a V_H domain.

22. (Currently Amended) The isolated binding member polypeptide according to claim 12, wherein the first and second binding domains are ~~[[is]]~~ are arranged as a complementarity-determining regions (CDRs) in the binding member polypeptide.

23. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 2, wherein the fragment of antibodies are selected from Fab, Fab', F(ab)₂ and Fv.
24. (Currently Amended) The binding ~~member~~ polypeptide according to claim 1, comprising at least a first binding domain, ~~[[and]]~~ a second binding domain, and a third binding domain, wherein said first and second binding domains are being capable of specifically binding Streptococcus pneumoniae surface adhesin A (PsaA) protein, and said ~~second~~ third binding domain is different from said first and second binding domains.
25. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 24, wherein the ~~second~~ third binding domain is capable of specifically binding a mammalian protein; ~~such as a human protein, such as a protein selected from CD64 or CD89.~~
26. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 24, wherein the ~~second~~ third binding domain is capable of specifically binding a mammalian cell, wherein said mammalian cell is selected from the group consisting of: such as a human cell, such as a cell selected from a leucocytes, macrophages, lymphocytes, neutrophilic cells, basophilic cells, and eosinophilic cells.
27. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 25, wherein the ~~second~~ third binding domain is capable of specifically binding a Pneumococcus protein.
28. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 27, wherein ~~second~~ third binding domain is capable of specifically binding a PsaA epitope different from the first and second binding domains.
29. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 24, wherein the binding ~~member~~ polypeptide comprises two three binding domains.
30. (Currently Amended) The isolated binding ~~member~~ polypeptide according to claim 29, wherein the ~~[[two]]~~ three binding ~~member~~ domains are linked through a spacer region.
31. - 41. (Canceled)